

REMARKS

Claim 66 is added. Claims 1-8, 17-22 and 52-66 and are in the application for consideration.

Independent claims 17 and 60 stand rejected as being obvious over a combination of Senzaki et al., Xiang et al. and Kang. Applicant disagrees and requests reconsideration.

Independent claims 17 and 60, in part, recite flowing a constant composition oxidizer stream to the reactor under conditions effective to deposit a barium strontium titanate (BST) comprising dielectric layer on the substrate. During such depositing, a rate of flow of the constant composition oxidizer stream to the reactor is changed at least once to effect a change in the atomic concentration of titanium within the deposited barium strontium titanate comprising layer. The Examiner acknowledges that the Senzaki et al. reference fails to teach changing the oxidizer flow rate at least once to effect a change in the relative atomic concentration of the titanium. Further, within Senzaki et al., the undersigned finds no disclosure whatsoever of changing a flow rate of the oxidizer stream for any purpose. Xiang et al. is equally lacking in this regard. The latter reference in no way discloses or implies changing an oxidizer flow rate for any reason, and accordingly, does not teach or suggest to a person of skill in the art what, if any, effect the changing of the flow rate of an oxidizer stream might have in the deposited film, and certainly not in the context of Applicant's claims in the formation of a BST film.

Regarding Kang, the Examiner asserts that it is taught that as one increases the N_2O flow rate, the concentration of strontium in the deposited film increases, relying upon Figs. 2A and 2B and the text pertaining thereto at col.5, lns.10-15. The Examiner is mistaken. Figs. 2A and 2B, and the text pertaining

thereto, only refer to the utilization of different composition oxidizer streams and neither say nor teach anything about flow rate with respect to such streams, and certainly not with respect to the flow rate of a constant composition oxidizer stream. Specifically, Fig. 2A refers to only three particular composition gasses, those being 100% N₂O, some mixture of an O₂ and N₂O composition, and a 100% O₂ composition. There is absolutely no teaching or suggestion of modifying a flow rate in any of the Fig. 2A depositions. Accordingly, the teachings to a person of skill in the art from Fig. 2A would naturally be that the flow rate of the oxidant was constant throughout the respective depositions. The same assertions apply with respect to Fig. 2B, wherein different composition oxidizer streams (one being 100% N₂O, another being 100% O₂, and a third being unknown in composition) are used in a constant flow rate oxidizer stream during the deposition.

It is acknowledged that Kang states that the amount of strontium and titanium is varied as the quantity of N₂O and O₂ changes. However, the statement clearly applies only in the context of composition, and not of flow rate. A person of skill in the art reading the teachings of Kang is only taught about varying the quantity of oxidizing species in the composition of an oxidizing stream, not in the flow rate of an oxidizing stream.

Not one of the references relied upon by the Examiner in any way teaches the modification of the flow rate of an oxidizer stream for any purpose or to effect any change, and certainly not doing so in the manner which Applicant recites in independent claims 17 and 60. As there is no literal or even implied suggestion in any of the cited references for modifying flow rate, the combination of references is lacking in at least this feature of Applicant's claims, and accordingly, the rejections should be withdrawn.

The Examiner's reliance upon Kang with respect to quantity in teaching modifying flow rate is taken entirely out of context and goes way beyond what Kang teaches to a person of skill in the art. In reference to "quantity", col.5, lns.10-15 in no way suggests or teaches to a person of skill in the art to modify flow rate. Lines 13-15 cannot be considered in isolation, but rather must be considered in the context of the disclosure. In the context of "quantity", col.5, lns.1-32+, and particularly starting at line 26, clearly teaches that the artisan is being taught to modify composition, not flow rate. There simply is no teaching within Kang of modifying flow rate for any purpose, let alone for that which Applicant claims. Accordingly, independent claims 17 and 60 should be allowed, and action to that end is requested.

Independent claims 1 and 52 stand rejected as being obvious over Senzaki et al., Xiang et al. and Kang, also. Applicant disagrees and requests reconsideration.

Independent claims 1 and 52 should be allowed for each of the reasons argued above with respect to the failings of the teachings of the cited references as pertaining to claims 17 and 60. Further, even if *arguendo* accepting that Kang can be reasonably stretched to teach modifying flow rate (which it can't), such would clearly only be in the context of modifying titanium versus strontium concentrations. Such in no way would teach or suggest to a person of skill in the art that flow rate modification of the oxidizer stream would have any effect on substituting barium and strontium metals in a deposition process where barium and strontium are provided within the reactor during all of the deposit of the layer at a substantially constant atomic ratio of barium to strontium. It is simply unfathomable that a person of skill in the art could in any way be taught anything about modifying the ratio of barium to strontium by changing the flow

rate of the oxidizer stream from the references upon which the Examiner relies. Accordingly for these additional reasons, independent claims 1 and 52 are not obvious over the cited combinations. Therefore, withdrawal of the rejection is required, and action to that end is requested.

Applicant's dependent claims should be allowed as depending from allowable base claims, and for their own recited features which are neither shown nor suggested in the cited art. For example, with respect to claims 2, 19, 53 and 62, none of the references even remotely suggest or disclose changing the flow rate once for any reason, and thus, would certainly not teach or suggest doing so more than once.

A Terminal Disclaimer is submitted herewith, thereby obviating the Examiner's double patenting rejection.

Further, a Supplemental Information Disclosure Statement is submitted herewith. In addition, the undersigned draws the Examiner's attention to previous Supplemental Information Disclosure Statements which the undersigned signed and filed on or about March 21, 2002 and May 8, 2002. The May 8, 2002 filing disclosed the Senzaki et al. reference, which is now officially of record. However, the undersigned requests the Examiner's consideration of the March 21, 2002 filing, and the initialling of the accompanying Form PTO-1449, as such are assumed to have been appropriately submitted and thereby require Examiner review and consideration.

This application is believed to be in immediate condition for allowance, and action to that end is requested.

Respectfully submitted,

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By:


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